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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,648	07/30/2001	Martin Birk	2000-0482	8483

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EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2638

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,648

Applicant(s)

BIRK ET AL.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. U.S. Patent no. 6,282,005 in view of Ostman et al. U.S. Patent no. 5,786,782.

Regarding claim 1, Thompson discloses in Figure 4, a method for delivering a plurality of video blocks to a user terminal serviced by a remote node comprising the steps of:

receiving, by a first WDM 152 (col. 11, lines 12-13), a broadband signal from a broadband signal source 150;

separating, by said first WDM 152, said broadband signal into a plurality of optical bands (col. 11, lines 11-13);

modulating each of the plurality of optical bands with a composite signal representing data by modulators 160, 162, 164 to form a plurality of modulated signals (col. 11, lines 28-30;

forwarding said plurality of modulated signals to a second WDM 166 to form a combined broadcast signal (col. 11, line 31);

transmitting said combined broadcast signal over feeder fiber 168 to a remote node 170; further transmitting said combined broadcast signal over distribution fiber to a user's site (e.g., figure 4 shown Information 1 to Information N to user's site); and selecting a RF block for distribution over a distribution fiber to a conventional satellite set-up box at a user's site (col. 8, lines 49-67).

Thompson differs from claim 1 of the present invention in that he does not specifically disclose modulating each of the plurality of optical bands with a composite signal representing data in a plurality of independent RF blocks. Ostman discloses modulating each of the plurality of optical bands with a composite signal representing data in a plurality of independent RF blocks (col. 1, lines 16-54).

At the time of the invention was made, it would have been obvious to an artisan to implement the teaching of Ostman that is modulating each of the plurality of optical bands with a composite signal representing data in a plurality of independent RF blocks in the system of Thompson. One of skill in the art would have been motivated to do that in order to provide a bandwidth efficient way of delivering multiple broadcast service on such a network using broadband spontaneous emission optical source.

3. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. U.S. Patent no. 6,282,005 in view of Ostman et al. U.S. Patent no. 5,786,782 and further in view of Lam U.S. Patent no. 6,721,506.

Regarding claim 2, the combination of Thompson and Ostman discloses all the limitation except for optical bands match a Free Spectral Range (FSR) of a Waveguide Grating Router (WGR) at said remote node. Lam, from the same field of endeavor,

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discloses a method and system deliver multiple-band broadcast service in a network such as WDM PON (abstract) having WDM remote node 120 consists of wavelength router called wavelength grating router (WGR) operates at optical bands match a Free Spectral Range (FSR) of a Waveguide Grating Router (WGR) (col. 1, line 34 to col. 2, line 40). At the time of the invention was made, it would have been obvious to an artisan to implement the teaching of Lam that is a method of deliver multiple-band broadcast service in a network such as WDM PON (abstract) having WDM remote node consists of wavelength router called wavelength grating router (WGR) operates at optical bands match a Free Spectral Range (FSR) of a Waveguide Grating Router (WGR) in the system of the combination of Thompson and Ostman. One of skill in the art would have been motivated to do that in order to provide a bandwidth efficient way of delivering multiple broadcast service on such a network using broadband spontaneous emission optical source (col. 1, line 11-14 of Lam)

Regarding claims 3 and 4, Lam discloses forwarding step further comprises the step of selecting a stack of RF blocks using an optical filter nominally matched to one of said first WDM's optical bands at said user's site, wherein said stack of RF blocks represents one optical band of said plurality of optical bands and bandpass filtering said block-converted stack of RF blocks to retrieve said selected RF block (col. 4, line 40 to col. 5, line 34).

Regarding claim 5, Lam discloses in figure 15, combined broadcast signal (e.g., from 1510) is passively split (e.g., by WDM 1520) and introduced to said WGR 1530 on a plurality of said WGR's input ports.

Regarding claim 6, Lam discloses EDFA or PDFA for amplifying broadcast signal (col. 3, lines 17-19). Furthermore, it is notoriously known that optical amplifiers can be placed anywhere along the transmission path in an optical system to boost the signal and to restore the signal to a desire level.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. U.S. Patent no. 6,282,005 in view of Ostman et al. U.S. Patent no. 5,786,782 and Lam U.S. Patent no. 6,721,506 and further in view of Lu et al. U.S. Patent no. 5,880,865.

Regarding claim 7, Thompson, Ostman and Lam disclose all the limitation except for delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select said switched services prior to introduction of said passively split combined broadcast signal to said WGR. Lu discloses in figure 7, delivery of a plurality of video blocks is augmented to additionally include delivery of switched services by using an additional narrowband signal source to provide a narrowband signal and by using an additional coarse WDM (CWDM) to detect and select said switched services prior to introduction of said passively split combined broadcast signal to said WGR (col. 5, lines 17-40). At the time of the invention was made, it would have been obvious to an artisan to implement the teaching of Lu in the combination system of Thompson, Ostman and Lam. One of skill in the art would have been motivated to do that in order

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to provide better service to customers and reduce cost for delivery of both switched services and analog-video broadcast over a PON (col. 3, lines 60-62 of Lu).

Response to Arguments

5. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

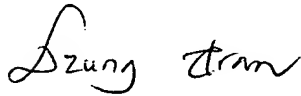
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, appearing to read "Dzung Tran".

Dzung Tran
03/01/2006